



DEPARTMENT OF THE NAVY

NAVAL AIR SYSTEMS COMMAND
NAVAL AIR SYSTEMS COMMAND HEADQUARTERS
WASHINGTON, DC 20361 -0001

IN REPLY REFER TO

NAVAIRINST 5215.10D
AIR-102
19 Nov 85

NAVAIR INSTRUCTION 5215.10D

From: Commander, Naval Air Systems Command

Subj: PROCESSING OF RAPID ACTION MINOR ENGINEERING CHANGES

Ref: (a) OPNAVINST 4790.2C, The Naval Aviation Maintenance Program
(b) NAVAIRINST 5215.8C, The NAVAIR Technical Directive System
(c) NAVAIRINST 4130.1A, The NAVAIR Configuration Management Manual (A
(d) NAVAIR AD 901, Management and Responsibility Cognizance List

Encl: (1) Flow Chart for Processing RAMEC's
(2) Sample, Originator's Proposed RAMEC Message Technical Directive
(3) Sample, Sponsor's Proposed RAMEC Message Technical Directive
(4) Sample, NAVAIR Approved RAMEC Message Technical Directive
(5) Sample, RAMEC Message Technical Directive Amendment

1. Purpose. To establish policy, procedures and responsibilities for the development, submission, and processing of rapid action minor engineering changes (RAMEC's).

2. Cancellation. This instruction supersedes NAVAIR Instruction 5215.10C of 10 November 1983.

3. Applicability. The RAMEC program provides for expeditious action on minor changes which offer significant advantages to the operating forces and is limited to minor engineering changes to naval aircraft, remotely-piloted vehicles, related power plants/propulsion units, components, air armament equipment, air refueling stores, external tanks, support equipment (SE), and aviation life support systems.

4. General. The concept of the RAMEC program is "fleet self-help." The policy and procedures contained herein are intended to facilitate the processing of proposed minor engineering changes. This is accomplished by operating activities, naval air rework facilities (NAVAIREWORKFAC's) or other cognizant field activities (CFA's) generating a proposed change for processing as depicted in enclosure (1).

a. Operating activities shall request sponsorship from their respective controlling custodian prior to prototyping one item per reference (a). A proposed RAMEC technical directive (TD) shall be prepared using enclosure (2) as a guide and forwarded to the controlling custodian for processing.

b. NAVAIREWORKFAC's and other CFA's with the exception of the Naval Air Systems Command Headquarters (NAVAIRHQ), may sponsor proposed RAMEC's on items for which they have primary cognizance provided they accept responsibility for coordinating related fleet support affected by the change and obtaining concurrences from affected controlling custodians. Proposed RAMEC TD's shall be developed using reference (b) guidelines and the specific format of enclosures (2) and (3). Procedures are so designed that minor changes may be processed expeditiously and incorporated promptly by organizational and/or intermediate level maintenance organizations, to ensure commonality of

configuration throughout the inventory. Changes approved per RAMEC procedures will be issued as numbered TD's. Upon installation, changes shall be recorded and reported per reference (a). Applicable drawings and publications shall be updated to provide source data for subsequent parts procurements and guidance for modified aircraft or components.

5. Policy. The RAMEC program is designed to provide a means of processing minor configuration changes. Specifically, a RAMEC must

a. be confined to a simple change that can be easily and rapidly incorporated and that does not warrant extensive technical review or work effort;

b. be authorized only for organizational or intermediate maintenance level implementation, including regular contractor maintenance support activities, and normally require not more than 8 man-hours per installation. Depot level implementation is not authorized except in the case of RAMEC's for SE which is used at both intermediate and depot level;

c. use only standard stock items and raw material available through the supply system, or source coded items which may be manufactured by the cognizant NAVAIREWORKFAC, or such other sources as may be available; (This material should be obtained by the requisitioning activity through normal procedures of submitting requisitions to the supply system. Total value for such standard stock items and raw material will normally not exceed \$500 per installation. Items procured for specific applications are not considered standard stock items. Local open purchase items are not considered available through the supply system.) (R

d. be complied with as directed by the applicable TD but not later than the next calendar/phase inspection requiring access to the area/zone containing the item to be changed after receipt of parts, or next induction of the item into an intermediate maintenance activity;

e. be coordinated with, and agreed to by, each affected controlling custodian, weapon system manager (WSM) when applicable, the CFA, and the Naval Air Maintenance Training Group (NAMTRAGRU) when naval air maintenance trainers are affected;

f. provide for modification of spares and trainers where applicable;

g. not involve the development, fabrication, procurement, or stocking of retrofit kits;

h. not be used to amend or supplement an existing interim or formal TD;

i. not generate a requirement for additional or new SE ;

j. not generate a change to SE, unless such change can be processed under this instruction;

k. not affect operational or avionics automatic test equipment, missile subsystem test sets, programs and/or tapes;

1. not involve changes to general purpose electronic test equipment under the technical/procurement cognizance of the Space and Naval Warfare Systems Command;

m. not generate a requirement for new technical manuals;

n. not apply to items bearing source, maintenance, and recoverability codes with "D" (Depot) in the fourth position, excepting SE items;

o. not normally exceed a total of \$15,000 for drawings/manuals update; (see paragraph 9 below for funding details) and

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p. not apply to nonconsumable items procured and managed by another service. (Formal engineering change proposals (ECP's) are required for Class I changes to such items.)

6. Procedures. The processing of RAMEC's will normally consist of five phases: (1) preparation, (2) verification, (3) review, (4) coordination, (5) approval and release.

a. Preparation. Proposed RAMEC's may be initiated by operating activities, NAVAIREWORKFAC's or other CFA's (except NAVAIRHQ). Activities proposing changes shall: after prototype/evaluation, draft a proposed message TD (or speedletter when drawings or sketches are required) per enclosure (2) and arrange for verification via a controlling custodian. All messages pertaining to proposed RAMEC's must bear the standard subject identification code N13051. Each proposed RAMEC submitted under these procedures shall be identified by inserting the word RAMEC at the end of the subject and an alpha-numeric control number, assigned by the sponsor (controlling custodian or CFA). RAMEC control numbers shall consist of three distinct elements - (1) source code (2) sequence number and (3) calendar year of initiation. (See enclosure (3) for sample RAMEC number and sponsor codes.) All message traffic shall reflect both the proposed RAMEC subject and the alpha-numeric control number, when assigned, to avoid confusion. Verification shall be accomplished prior to sponsor requesting review by other affected activities.

b. Verification. The controlling custodian when requested to verify a proposed RAMEC will determine need for verification and when required will assign the task to an activity of the same maintenance level as that proposed for compliance in the TD. Verification should be accomplished by an activity other than the activity that originally prototyped the proposed RAMEC. When the change will be applicable to multiple type-model-series, for example, A-7A/B/C/E, verification on more than one series may be required. The verifying activity will perform verification per paragraph 10, "Detailed Instructions" of the proposed TD on the applicable equipment, within 60 days of request, and submit problems and recommended changes to the sponsor with information copies to other affected controlling custodians, the WSM, CFA and NAVAIRHQ. Upon satisfactory completion of verification, the sponsor will formally request review of the proposed RAMEC by other affected activities.

NOTE: Proposed RAMEC's initiated by NAVAIREWORKFAC's or other CFA's, shall be verified by operating activities, by request through a controlling custodian.

c. Review. Proposed RAMEC's shall be reviewed by affected controlling custodians, the affected WSM, and the CFA to confirm need, applicability and technical approach. Each reviewing activity shall submit comments within 30 days to the sponsor.

(1) The sponsor shall also review the proposed RAMEC to ensure

(a) that drawings and technical manuals (including naval air training and operating procedures, maintenance manuals/requirements cards, etc.), which will be impacted by the RAMEC are identified in paragraph 3 of the proposed TD under "Documentation Affected;"

NOTE: Without exception, every RAMEC impacts at least one drawing. Applicable drawing numbers shall be obtained from the CFA including new part numbers when reidentification is necessary.

(b) the availability of required parts/material in the supply system to modify all applicable items;

NOTE: Include a statement in paragraph 15 "Related Instructions/Information" of the proposed TD that a stock check was accomplished with the Aviation Supply Office (ASO) or Defense Logistics Agency (DLA) confirming availability of parts/material required to modify all affected items. (See paragraph 13c below for procedures when the stock check reveals insufficient quantities to meet projected requirements.)

(c) that instructions are included to modify maintenance trainers and spares, where applicable;

(d) that part numbers (PN's) and national stock numbers (NSN's) are correct;

(e) that maintenance levels and hours to install are correct;
and

(f) overall accuracy and completeness.

(2) The CFA shall conduct a technical review of the proposed RAMEC (including all technical aspects of the change and its interface with ongoing or planned ECP's) and forward comments to the sponsor, with info copy to NAVAIRHQ and WSM.

NOTE: A separate concurrence/non-concurrence message, with information copy to NAVAIRHQ, is required on each RAMEC to facilitate tracking and follow-up. Nonconcurrences will be explained.

d. Coordination. Upon completion of review

(1) the sponsor shall evaluate and coordinate responses from affected controlling custodians, the WSM, the NAVAIREWORKFAC/CFA, NAMTRAGRU, and when applicable request documentation cost information from the NAVAIREWORKFAC/CFA. When drawings and publications responsibilities reside with the prime contractor or vendor, the NAVAIREWORKFAC/CFA will request a cost quote from the prime contractor or vendor and provide information to the appropriate; and

(2) the NAVAIREWORKFAC/CFA shall determine cost estimates to update "Documentation Affected" (drawings and manuals) and when applicable, forward cost data to the sponsor within 30 days.

e. Approval and Release. Upon completion of coordination

(1) the sponsor shall prepare and dispatch a final proposed RAMEC to NAVAIRHQ, and the WSM where applicable, per enclosure (3), including as references date time groups of concurring messages from each affected controlling custodian, WSM and CFA;

NOTE: If the final proposed RAMEC to NAVAIRHQ is a speedletter, it must be addressed to ATTN: Change Control Board Secretariat (AIR-1022B3) for recording and distribution to NAVAIRHQ cognizant codes. (R

(2) the proposed RAMEC will be scheduled by the Configuration Management Branch (AIR-1022B) for review by the appropriate NAVAIRHQ Change Control Board (CCB) within 30 days after receipt. The NAVAIRHQ technical code (or WSM when assigned) shall prepare a NAVAIR Form 13050/2, CCB Change Request/Directive in accordance with reference (c). For aircraft still in production, NAVAIRHQ shall request contractor comments. NAVAIRHQ will consider production incorporation of RAMEC's where applicable. Upon CCB approval, a RAMEC message TD (Sample-enclosure (4) or speedletter when sketches/drawings are required, will be scheduled for release by the cognizant NAVAIR technical branch head or WSM within 7 days; and

NOTE: Drafters of RAMEC TD's may obtain TD numbers from the CCB Secretariat, AIR-1022B3 the day after CCB approval.

(3) the cognizant NAVAIRHQ engineering code will normally prepare the final RAMEC TD in message form, addressed to Address Indicator Group (AIG) 165, the applicable AIG supplemental list, and information to friendly foreign countries operating like aircraft/equipment. RAMEC TD's applicable to aircraft under the cognizance of a WSM will be prepared and released by the WSM after CCB approval. All support equipment changes (SEC's) will be released by NAVAIRHQ Support Equipment Division (AIR-552).

NOTE: When a proposed RAMEC is disapproved prior to preparing/processing a CCB change request, the cognizant NAVAIRHQ technical code or WSM, where applicable, shall prepare and dispatch a disapproval message to the sponsor, with information copies to all other addressees on the proposed RAMEC, giving reason(s) for disapproval and directing removal of actual installation called for in paragraph 6b above. A disapproval message shall be released within 7 days following the disapproval decision date.

7. Action. Upon receipt of an approved RAMEC

a. Affected controlling custodians will take action to

(1) assure incorporation of the RAMEC TD into basic equipment within the time frame specified and report compliance per reference (a), and

(2) effect local arrangement between maintenance and supply activities to accomplish modification of rotatable spares, where applicable.

b. CFA's/NAVAIREWORKFAC's shall

(1) provide microfilm copies of new or revised drawings to the Naval Air Technical Services Facility (NAVAIRTECHSERVFAC) per NAVAIR Instruction 5600.14C, within 60 days after release of the approved RAMEC TD,

(2) provide design change notices (DCN's) to ASO (Code WSS2-A) when required, within 60 days after release of the approved RAMEC TD;

(3) prepare and/or coordinate maintenance publications data package submittal with NAVAIRTECHSERVFAC (Code 02D) within 90 days after release of the approved RAMEC TD; and

(4) prepare and coordinate change recommendations to operating procedures with NAVAIRHQ per OPNAVINST 3710.7L within 90 days after release of the approved RAMEC TD." (R

c. NAVAIRTECHSERVFAC will

(1) coordinate technical manual updates with NAVAIREWORKFAC's/CFA's, and

(2) process contractors' documents for technical manual updates.

8. SE RAMEC's. Common support equipment (CSE) and peculiar support equipment (PSE) RAMEC's may involve CFA's other than those that normally support aircraft or components. CFA's responsible for CSE and PSE design engineering are shown in reference (d). It is necessary that these CFA's receive copies of proposed CSE/PSE RAMEC's so that they may discharge their CFA responsibilities. The Assistant Director, Support Equipment Division (AIR-552A) chairs the SE CCB and the Support Equipment Logistics Management Division (AIR-417) provides SEC numbers from a block of numbers obtained from NAVAIRTECHSERVFAC.

9. Funding

a. When the RAMEC program was initiated, it was determined that additional funds would not be made available for material or manpower associated with installation of RAMEC's, but limited funds have been budgeted for drawings and publications update resulting from approved RAMEC's. To stay within the intent of the RAMEC program and to obtain maximum benefits, the cost of updating drawings/publications of a proposed RAMEC should not normally exceed \$15,000. Proposed RAMEC's that will obviously improve reliability or greatly reduce maintenance efforts that exceed the \$15,000 guideline, may be processed for approval provided they are fully justified and are considered essential by affected controlling custodians, WSM's where applicable, and NAVAIRHQ. (R

b. Changes to drawings and publications involving weapon systems in production, for example, F/A-18, CH-53E, E-2C, F-14A and P-3C, may be funded by respective program managers when the change has been or is to be incorporated in production.

10. Amendments and Revisions to Technical Directives

a. After a RAMEC TD has been issued by NAVAIRHQ or a WSM, any change, correction or cancellation shall be issued as an amendment. Amendments shall include: title, TD number, amendment number, subject (identical to the basic), reference(s), cognizant codes, category, documentation affected (date time group and source of basic TD message), purpose of the amendment and detailed instructions. See enclosure (5). A maximum of three amendments may be applied to a RAMEC TD before a revision is required.

b. Amendments correcting administrative errors do not require CCB action. However, amendments that cancel CCB approved changes or that increase fleet work loads, costs or support, require fleet coordination and CCB approval.

c. Amendment numbers or revision letters shall be obtained via the ILS Requirements Section (AIR-41054), except that SEC numbers are assigned by the Plans, Evaluation and Transition Office (AIR-41713).

d. A revision shall be used when it is necessary to issue a completely new edition of an existing TD. It shall supersede the original directive or latest revision and all existing amendments. Revisions shall be used to extend the life of RAMEC TD's.

11. Rescission Dates. RAMEC TD rescission dates shall be either 30 June or 31 December, 5 years after date of issuance.

12. Related Areas

a. RAMEC's will not normally be incorporated during standard depot level maintenance (SDLM). However, if a follow-on TD is to be incorporated during SDLM and a RAMEC TD is a prerequisite, the RAMEC TD may be incorporated by the NAVAIREWORKFAC.

b. Items of supply to be modified as the result of an approved RAMEC may require reidentification, that is, new PN's. This requires action by the CFA to obtain a new PN from the contractor when master drawings are still held by the contractor or to assign a new CFA drawing number. The following guidelines pertain:

(1) When original drawings are held by the prime contractor or vendor who agrees to update drawings to reflect the proposed modification, the cognizant NAVAIREWORKFAC, or other CFA, shall obtain drawing update cost estimates and include same in the proposed RAMEC.

(2) When original drawings cannot be located or when the original drawings are held by the prime contractor or vendor who refuses to modify drawings to reflect the design change, the RAMEC may be forwarded to NAVAIRHQ only if the cognizant NAVAIREWORKFAC, or other CFA, is prepared to both create new drawings and to serve as the production source for the specific part(s) to be modified. The NAVAIREWORKFAC or CFA shall develop cost estimates for creating drawings and include same in the proposed RAMEC.

c. A preliminary stock check shall be accomplished by the proposing activity and by sponsors of RAMEC's during the review phase. If the quantity of items in the supply system is sufficient to meet the total projected requirement, the sponsor will include a statement in paragraph 15 of the proposed RAMEC that a stock check with ASO and/or DLA confirms availability of parts required. If the stock check reveals that supply system assests are insufficient to meet projected requirements, the sponsor may include a statement to that effect in paragraph 15 of the proposed RAMEC and may recommend that NAVAIRHQ approve the RAMEC for implementation on a specified effective date, based on procurement lead time away availability of required items. Upon receipt of the NAVAIRHQ approved RAMEC technical directive, the sponsor will submit a special program requirement to the cognizant inventory control point (ICP). If the effective date is within 90 days, affected reporting custodians shall submit funded requisitions (if for other than appropriation purchases account material) which shall be coded to indicate the non-repetitive nature of the demand. If the effective date is more than 90 days in the future, affected controlling custodians may elect to submit planned requirements to the ICP's in accordance with NAVSUP publication 437, thus enhancing the availability of stock for requisitioning on the effective date.

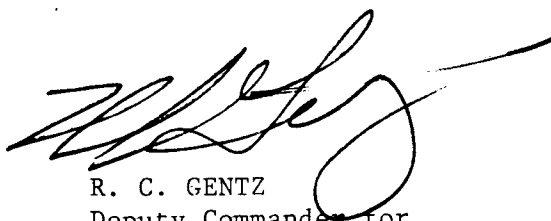
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13. Forms

a. Fleet Maintenance Activities. OPNAV Form 4790/24A, Technical Directives, Stock No 0107-LF-047-9124, OPNAV Form 4790/60, VIDS/MAF, Stock No. 0107-LF-047-9304, and OPNAV Form 4790/111, Aircraft Inventory Record, Stock No. 0107-LF-047-9565 Aircraft Inventory Record, are available in the cognizance symbol "I" supply system and may be requisitioned per NAVSUP Publication 2002.

b. Weapon Systems Managers. NAVAIR Form 13050/2, CCB Change Request/Directive, may be obtained from the NAVAIRHQ, Support Aircraft and Weapon Systems Program Coordination Office (APC-200).

c. Headquarters. NAVAIR Form 13050/2 is stocked in the NAVAIRHQ Forms Stock Room for NAVAIRHQ use only.



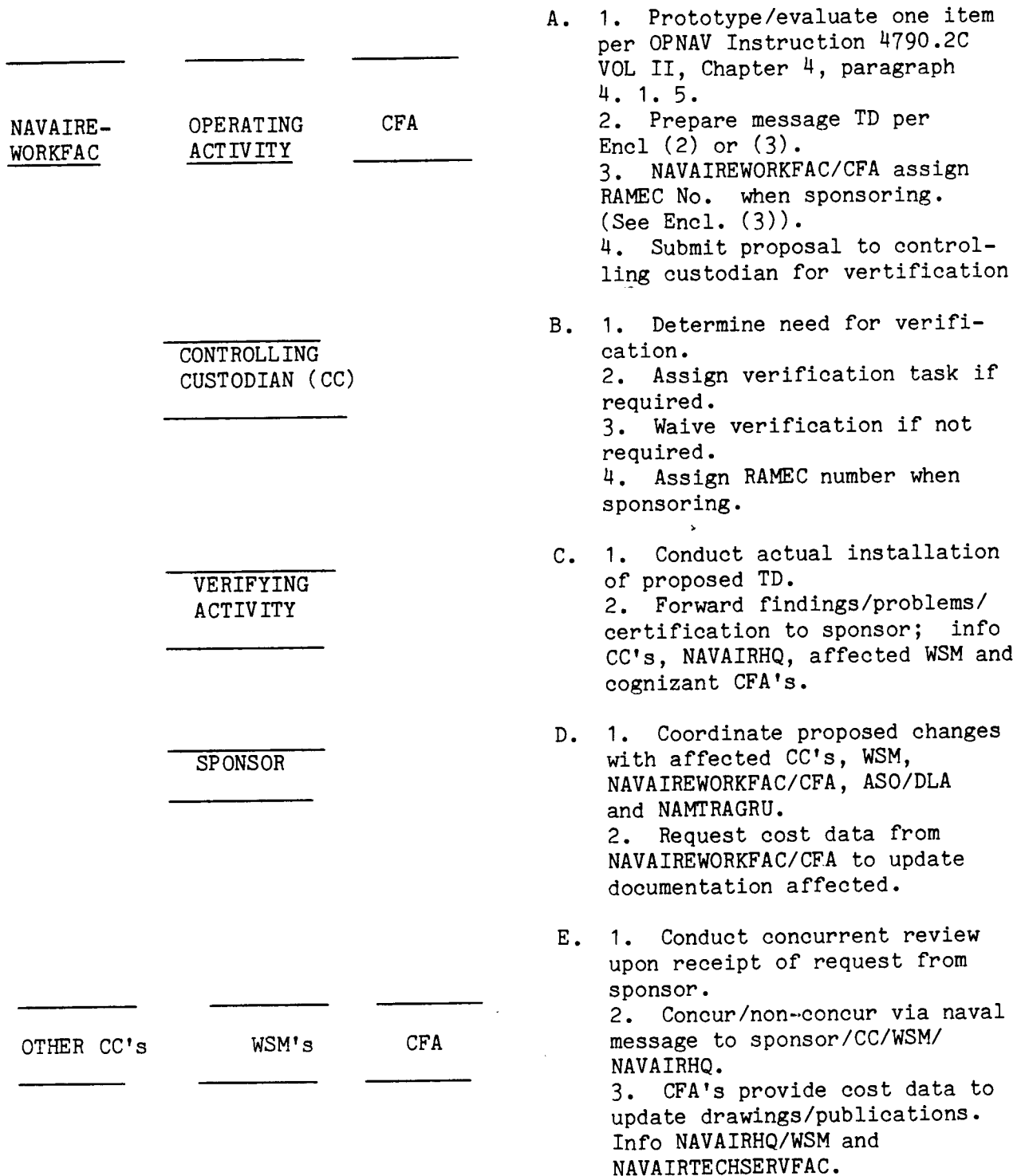
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Stocked at: Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120-5099

FLOW CHART FOR PROCESSING RAMEC'S



SPONSOR

NAVAIRHQ/WSM

<hr/> CFA <hr/>	<hr/> FLEET <hr/>	<hr/> *MILITARY ASSISTANCE ADVISORY GROUPS <hr/>
<hr/> NAVAIR- TECHSERVFAC <hr/>	<hr/> ASO <hr/>	<hr/> NAVAL AVIATION LOGISTICS CENTER <hr/>

- F. 1. Ensure completeness and accuracy.
2. Forward final draft "wrap-up" message or speedletter to NAVAIRHQ per enclosure (3), ATTN: AIR-1022B.
- G. 1. Schedule for CCB.
2. Consider production incorporation.
3. Prepare CCB change request.
4. Coordinate funding with AIR-4003 or PMA as required.
5. Upon approval, prepare and dispatch RAMEC to AIG-165, and applicable AIG supplemental lists.
- H. 1. NAVAIREWORKFAC/CFA - update drawings; coordinate publications update with NAVAIRTECHSERVFAC, and provide DCN TO, ASO (Code: WSS2-A).
2. Fleet - comply and report installation.
3. *Info only when applicable.
4. Update publications, process DCN's and complete status accounting records.

SAMPLE

ORIGINATOR'S PROPOSED RAMEC MESSAGE TECHNICAL DIRECTIVE (A

ROUTINE

NOTE: FROM RAMEC ORIGINATOR FROM: ATKRON ONE TWO TWO
NOTE: TO SPONSORING CONTROLLING TO: COMNAVAIRPAC SAN DIEGO CA
CUSTODIAN INFO: COMLATWINGPAC NAS
LEMOORE CA
NAVAIREWORKFAC
JACKSONVILLE FL

ORIGINATORS AND SPONSORS USE
SSIC N13051 FOR ALL PROPOSED
RAMEC'S

UNCLAS //N13051//

NOTE: THE FIRST TWO WORDS OF NOTE: SEE OPNAVINST 4790.2C,
SUBJECT MUST BE: VOL II, APPENDIX L FOR
"PROPOSED RAMEC" FOR TD TITLES AND CODES
COMPUTER RECOGNITION

SUBJ: PROPOSED RAMEC, A-7 AIRFRAME CHANGE NO. XXX, TD CODE 50, EPP
ADVISORY LIGHT INSTALLATION (RAMEC P-XX-85) WUC 44216

NOTE: RAMEC SPONSOR WILL ASSIGN
RAMEC NO.

SOURCE CODES FOR RAMEC CONTROL NUMBERS:

"L"	FOR COMNAVAILANT	"JAX"	FOR NAVAIREWORKFAC JACKSONVILLE
"P"	FOR COMNAVAIRPAC	"PNCLA"	FOR NAVAIREWORKFAC PENSACOLA
"R"	FOR COMNAVAIRESFOR	"CHPT"	FOR NAVAIREWORKFAC CHERRY POINT
"T"	FOR CHNAVAIRTNG	"NORVA"	FOR NAVAIREWORKFAC NORFOLK
		"NORIS"	FOR NAVAIREWORKFAC NORTH ISLAND
		"ALMDA"	FOR NAVAIREWORKFAC ALAMEDA
		"NAC"	FOR NAVAVIONICEN INDIANAPOLIS IN
		"PMTc"	FOR PACMISTESTCEN PT MUGU CA
		"NAEC"	FOR NAVAIRENGCEN LAKEHURST NJ

NOTE: FOR AIRFRAME CHANGES, SHOW THE AIRCRAFT TYPE AND MODEL ONLY. FOR
EXAMPLE, "F-4 AIRFRAME CHANGE NO. XXX" OR "F-14 AIRFRAME CHANGE NO. XXX".
FOR AVIONICS CHANGES, SHOW NOMENCLATURE AFTER THE TD CODE. IF THE AVIONICS
CHANGE IS PECULIAR TO A SPECIFIC T/M/S AIRCRAFT, INCLUDE THAT T/M/S IN THE
SUBJECT.

Encl (2)

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FOR EXAMPLE, " AVIONICS CHANGE NO. XXXX, TD CODE 54, AN/ALD-8 IMPROVED COOLING IN EP-3E AIRCRAFT (RAMEC P-66-84).

REFERENCES: NOTE: INCLUDE AS REFERENCES CORRESPONDENCE, ETC. THAT GIVES BACKGROUND OR INFORMATION SHOWING WHY THE PROPOSED CHANGE IS NEEDED OR DESIRABLE.

1. COG CODE: (ORIGINATOR'S NAME, ORGANIZATION, CODE, AND AUTOVON NO.)
2. CATEGORY: ROUTINE ("URGENT" ONLY IF SAFETY IS INVOLVED)
3. DOCUMENTATION AFFECTED: (LIST DRAWINGS, MANUALS, AND OTHER PUBS AFFECTED; INCLUDE ISSUE/REVISION DATES)
4. PURPOSE: (PROVIDE A BRIEF EXPLANATION OF THE CHANGE) I. E. , TO MODIFY..., TO ADD..., TO DELETE..., TO CHANGE...
5. APPLICATION:

A. BASIC EQUIPMENT:

<u>T/M/S</u>	<u>S/N'S</u>	<u>QTY</u>
AIRCRAFT OR COMPONENT NOMENCLATURE	INDICATE S/N'S WHEN CHANGE HAS BEEN INTRODUCED IN PRODUCTION OR APPLIES --- ONLY TO CERTAIN CONFIGURATIONS. OTHERWISE INSERT "ALL". SPECIFY TOTAL QUANTITY OF ITEMS TO BE MODIFIED.	

B. TRAINERS: COCKPIT PROCEDURES OR NAMTS, AS APPLICABLE. IDENTIFY BY MODEL, S/N, AND LOCATION(S).

C. SPARES:

<u>NOMEN</u>	<u>PART NO.</u>	<u>FSCM</u>	<u>NSN</u>
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6. COMPLIANCE:

A. BASIC EQUIPMENT: SHALL BE MODIFIED BY ORGANIZATIONAL/INTERMEDIATE MAINTENANCE ACTIVITIES NO LATER THAN NEXT PHASE/CALENDAR INSPECTION AFTER RECEIPT OF PARTS. (FOR COMPONENT RAMEC'S, NLT NEXT INDUCTION INTO INTERMEDIATE MAINTENANCE ACTIVITY.)

B. TRAINERS: SHALL BE MODIFIED BY CUSTODIANS UPON AVAILABILITY AFTER RECEIPT OF PARTS.

C. SPARES:

NOTE: IF SPARES ARE AFFECTED, INDICATE REQUIREMENT FOR MODIFICATION BY OMA OR IMA PRIOR TO INSTALLATION.

7. MAN-HOURS REQUIRED: (PER MODIFICATION/INSTALLATION)

	<u>NO. OF MEN</u>	<u>SKILL</u>	<u>TOTAL MAN-HOURS</u>
A. BASIC EQUIPMENT	_____	_____	(ACTUAL)
B. TRAINERS	_____	_____	(ESTIMATE)
C. SPARES	_____	_____	(ESTIMATE)

8. SUPPLY DATA:

A. REQUIREMENTS FOR BASIC EQUIPMENT:

(1) PARTS/MATERIAL REQUIRED: (PER MODIFICATION/INSTALLATION)

<u>QTY</u>	<u>PART NO.</u>	<u>FSCM</u>	<u>NOMEN</u>	<u>SM&R</u>	<u>NSN</u>	<u>SOURCE</u>
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(2) PECULIAR SUPPORT EQUIPMENT REQUIRED:

(3) PARTS/MATERIAL REMOVED:

<u>QTY</u>	<u>PART NO.</u>	<u>NOMEN</u>	<u>NSN</u>	<u>DISPOSITION</u>
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NOTE: PROVIDE APPROPRIATE INSTRUCTIONS FOR
SOURCE AND DISPOSITION CODES.

B. REQUIREMENTS FOR TRAINERS: (SAME FORMAT AS PARA 8A ABOVE)

C. REQUIREMENTS FOR SPARES: (SAME FORMAT AS PARA 8A ABOVE)

9. REIDENTIFICATION: (IF REQUIRED, SPONSOR OBTAINS NEW PN VIA THE
CFA DURING REVIEW PHASE AND INCLUDES MARKING INSTRUCTIONS IN PARAGRAPH 10.)

<u>PREV.</u> <u>PART NO.</u>	<u>PREV.</u> <u>NSN</u>	<u>NOMEN</u>	<u>SUPERSEDING</u> <u>PART NO.</u>	<u>SUPERSEDING</u> <u>NSN</u>
				TBD

NOTE: SUPERSEDING NSN NOT AVAILABLE UNTIL AFTER CFA HAS
SUBMITTED AND ASO HAS PROCESSED DESIGN CHANGE NOTICE.

10. DETAILED INSTRUCTIONS: (AS REQUIRED)

NOTE: IN ADDITION TO REQUIRED DETAILED INSTRUCTIONS, INCLUDE
THE FOLLOWING APPLICABLE STATEMENTS.

() CONDUCT APPROPRIATE TEST AND/OR OPERATIONAL CHECKS UPON COMPLETION
OF EACH MODIFICATION/INSTALLATION

() PAINT OR VIBROENGRAVE TD NO. XXXX ON MOD PLATE OR ADJACENT TO
NAMEPLATE (FOR ALL COMPONENT CHANGES).

11. WEIGHT AND BALANCE: (INCLUDE A STATEMENT REFLECTING THE EFFECT ON WEIGHT
AND BALANCE.)

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12. RECORDS AFFECTED: RECORD ACCOMPLISHMENT OF THIS DIRECTIVE IN OPNAV FORM 4790/24A, TECHNICAL DIRECTIVES, OR UPDATE ATDR LISTS TWO AND FOUR AS APPROPRIATE. REPORT COMPLIANCE VIA OPNAV FORM 4790/60, VIDS/MAF. UPDATE OPNAV FORM 4790/111, AIRCRAFT INVENTORY RECORD, IF REQUIRED.

13. VERIFIED BY: (DURING REVIEW CYCLE, SPONSOR DETERMINES NEED FOR RAMEC VERIFICATION AND ASSIGNS VERIFICATION ACTIVITY IF REQUIRED.)

14. RESCISSION DATE: (WILL BE ASSIGNED WHEN TECHNICAL DIRECTIVE IS ISSUED.)

15. RELATED INSTRUCTIONS/INFORMATION:

A. INCLUDE ADDITIONAL INFORMATION TO JUSTIFY THE RAMEC. CITE, FOR EXAMPLE, NUMBER OF FAILURES, FREQUENCY OF PROBLEM, MTBF, OR OTHER SUBSTANTIVE VALUES THAT WILL SHOW WHY THE CHANGE IS NEEDED. ALSO CITE BENEFITS THAT WILL ACCRUE, I. E., IMPROVED RELIABILITY, REDUCED MAINTENANCE MAN-HOURS OR OPERATIONAL IMPROVEMENT, ESPECIALLY WHERE TOTAL MAN-HOURS OR DOCUMENTATION COSTS EXCEED GUIDELINES.

B. NOTE: DURING RAMEC REVIEW CYCLE SPONSOR TO OBTAIN COST DATA FOR PUB/DWG CHANGES IDENTIFIED IN PARA 3 OF THE PROPOSED RAMEC. LIST DRAWINGS, NAVAIR MANUALS, MRC CARDS, NATOPS, ETC THAT REQUIRE UPDATE. SHOW NUMBER OF MANUAL PAGES REQUIRING UPDATE. PROVIDE COST DATA FOR EACH DOCUMENT LISTED. INCLUDE A LINE ITEM FOR PRINTING AND DISTRIBUTION OF TECHNICAL MANUALS EQUAL TO 14 PER CENT OF TM UPDATE COSTS.)

C. PROPOSED CHANGE PROTOTYPED IN (GIVE T/M/S AND SN) AND WILL REMAIN UNLESS OTHERWISE DIRECTED.

D. STOCK CHECK ACCOMPLISHED. PARTS/MATERIAL REQUIRED TO IMPLEMENT THIS CHANGE ARE AVAILABLE IN THE SUPPLY SYSTEM TO MODIFY ALL AFFECTED ITEMS.

SAMPLE

SPONSOR'S PROPOSED RAMEC MESSAGE TECHNICAL DIRECTIVE

(FINAL WRAP-UP)

ROUTINE

<u>NOTE:</u> FROM RAMEC SPONSOR	FROM: COMNAVAIRPAC SAN DIEGO CA
<u>NOTE:</u> TO WSM ALSO WHEN APPLICABLE	TO: COMNAVAIRSYSCOM WASHINGTON DC
<u>NOTE:</u> INFO ALL AFFECTED CONTROLLING CUSTODIANS AND CFA'S	INFO: COMNAVAIRLANT NORFOLK VA
<u>NOTE:</u> INFO NAVAIRTECHSERVFAC AND ASO ON ALL PROPOSED RAMEC'S	COMNAVAIRESFOR NEW ORLEANS LA
<u>NOTE:</u> INFO NAVPRO OR APPRO FOR AIRCRAFT IN PRODUCTION	CNATRA CORPUS CHRISTI TX
	NAVAIREWORKFAC JACKSONVILLE FL
	NAVAIRTECHSERVFAC
	PHILADELPHIA PA
	ASO PHILADELPHIA PA
	NAMTRAGRU MILLINGTON TN
SPONSORS USE SSIC N13051 FOR ALL PROPOSED RAMEC'S	

UNCLAS //N13051//

NOTE: THE FIRST TWO WORDS OF SUBJECT MUST BE:
"PROPOSED RAMEC" FOR
COMPUTER RECOGNITION

NOTE: SEE OPNAVINST 4790.2C,
VOL II, APPENDIX L FOR
TD TITLES AND CODES

(R

SUBJ: PROPOSED RAMEC, A-7 AIRFRAME CHANGE NO. XXX, TD CODE 50, EPP ADVISORY LIGHT INSTALLATION (RAMEC P-10-85) WUC 44216

SOURCE CODES FOR RAMEC CONTROL NUMBERS:

"L" FOR COMNAVAIRLANT	"JAX" FOR NAVAIREWORKFAC JACKSONVILLE
"P" FOR COMNAVAIRPAC	"PNCLA" FOR NAVAIREWORKFAC PENSACOLA
"R" FOR COMNAVAIRESFOR	"CHPT" FOR NAVAIREWORKFAC CHERRY POINT
"T" FOR CHNAVAIRTNG	"NORVA" FOR NAVAIREWORKFAC NORFOLK
	"NORIS" FOR NAVAIREWORKFAC NORTH ISLAND
	"ALMDA" FOR NAVAIREWORKFAC ALAMEDA
	"NAC" FOR NAVAVIONICEN INDIANAPOLIS IN
	"PMTIC" FOR PACMISTESTCEN PT MUGU CA
	"NAEC" FOR NAVAIRENGCEN LAKEHURST NJ

NOTE: FOR AIRFRAME CHANGES, SHOW THE AIRCRAFT TYPE AND MODEL ONLY. FOR EXAMPLE, "F-4 AIRFRAME CHANGE NO. XXX" OR F-14 AIRFRAME CHANGE NO. XXX". FOR AVIONICS CHANGES, SHOW NOMENCLATURE AFTER THE TD CODE. IF THE AVIONICS CHANGE IS PECULIAR TO A SPECIFIC T/M/S AIRCRAFT, INCLUDE THAT T/M/S IN THE SUBJECT. FOR EXAMPLE, "AVIONICS CHANGE NO. XXXX, TD CODE 54, AN/ALD-8 IMPROVED COOLING IN EP-3E AIRCRAFT (RAMEC P-66-84)."

- A. ORIGINATOR'S MESSAGE
- B. VERIFICATION REPORT/MESSAGE
- C/D/E. CONTROLLING CUSTODIANS CONCURRENCES OR NON-APPLICABILITY
- F. CFA TECHNICAL CONCURRENCE AND DOCUMENTATION COSTS (INCLUDE WSM CONCURRENCE AS APPLICABLE)
- 1. COG CODE: (ORIGINATOR'S NAME, ORGANIZATION, CODE, AND AUTOVON NO.)
- 2. CATEGORY: ROUTINE ("URGENT" ONLY IF SAFETY IS INVOLVED)
- 3. DOCUMENTATION AFFECTED: (LIST DRAWINGS, MANUALS AND OTHER PUBS AFFECTED: INCLUDE ISSUE/REVISION DATES)

NOTE: CHANGES TO DOCUMENTATION LISTED HERE MUST BE PRICED IN
PARA 15 BELOW.

NOTE: PARA 4 THROUGH 12 SAME FORMAT AND CONTENT AS ENCLOSURE (2)
WITH CHANGES AS DETERMINED DURING PROPOSED RAMEC REVIEW CYCLE.

- 13. VERIFIED BY: (IDENTIFY ACTIVITY THAT PERFORMED VERIFICATION. IF WAIVED, IDENTIFY AUTHORITY THAT WAIVED VERIFICATION.)
- 14. RESCISSION DATE: (30 JUNE OR 31 DECEMBER 5 YEARS AFTER DATE OF ISSUE - TO BE ASSIGNED BY NAVAIRHQ OR WSM UPON ISSUANCE OF THE TD)
- 15. RELATED INSTRUCTIONS/INFORMATION:
 - A. REF A FORWARDED SUBJ RAMEC. REF B PROVIDED RESULTS OF VERIFICATION. REFS C, D, AND E PROVIDED CONTROLLING CUSTODIAN CONCURRENCES/NON-APPLICABILITY. REF F PROVIDED TECHNICAL/WSM CONCURRENCE AND DOCUMENTATION COSTS.

B. COST DATA FOR CHANGES TO DOCUMENTATION IDENTIFIED IN PARA 3 ABOVE:

(LIST DRAWINGS, NAVAIR MANUALS, NATOPS, MRC CARDS, ETC THAT REQUIRE UPDATE. IDENTIFY BY ASTERISK, THOSE PUBLICATIONS THAT MUST BE UPDATED IMMEDIATELY UPON ISSUANCE OF THE RAMEC TD. SHOW NUMBER OF MANUAL PAGES REQUIRING UPDATE. PROVIDE COST DATA FOR EACH DOCUMENT LISTED. INCLUDE A LINE ITEM FOR PRINTING AND DISTRIBUTION OF TECHNICAL MANUALS EQUAL TO 14 PER CENT OF THE UPDATE COSTS.)

C. UPON APPROVAL BY NAVAIRHQ, CFA (SPECIFY WHICH CFA/NAVAIREWORKFAC) WILL

- (1) PREPARE AND COORDINATE PUBLICATIONS DATA PACKAGE SUBMITTAL WITH NAVAIRTECHSERVFAC, CODE 02D; AND
- (2) PREPARE AND SUBMIT DESIGN CHANGE NOTICES TO ASO, CODE WSS2-A.

D. RECOMMEND PUBLICATIONS CHANGES BE HELD FOR INCLUSION IN NEXT AUTHORIZED CHANGE/REVISION.

NOTE: FOR URGENT CATEGORY RAMEC'S, THE APML MAY AUTHORIZE CFA TO ISSUE RAPID ACTION PUBLICATIONS CHANGES IAW NAVAIRINST 5600.19B.

E. OTHER PERTINENT INFORMATION:

(1) INCLUDE ADDITIONAL INFORMATION TO JUSTIFY THE RAMEC. CITE, FOR EXAMPLE, NUMBER OF FAILURES, FREQUENCY OF PROBLEM, MTBF, OR OTHER SUBSTANTIVE VALUES THAT WILL SHOW WHY THE CHANGE IS NEEDED. ALSO CITE BENEFITS THAT WILL ACCRUE, I. E. , IMPROVED RELIABILITY, REDUCED MAINTENANCE MAN-HOURS OR OPERATIONAL IMPROVEMENT, ESPECIALLY WHERE TOTAL MAN-HOURS OR DOCUMENTATION COSTS EXCEED GUIDELINES.

(2) ADVISE, IF KNOWN, WHEN CONTRACTOR HAS INCORPORATED THE CHANGE IN PRODUCTION AND WILL BE UPDATING PUBS AND SUBMITTING DCN TO ASO.

(3) INDICATE RESULTS OF STOCK CHECK. FOR EXAMPLE: PARTS/MATERIAL REQUIRED TO IMPLEMENT THIS CHANGE ARE AVAILABLE IN THE SUPPLY SYSTEM TO MODIFY ALL AFFECTED ITEMS. STOCK CHECK CONDUCTED BY _____ WITH _____
ORGAN

_____ ON _____
ASO/DLA DATE

SAMPLE

NAVAIR APPROVED RAMEC MESSAGE TECHNICAL DIRECTIVE

ROUTINE

FROM: COMNAVAIRSYS COM WASHINGTON DC

TO: AIG ONE SIX FIVE

AIG THREE

NOTE: SEE CURRENT ISSUE
NAVAIRNOTE 5215 FOR
SUPPLEMENTAL AIGS

INFO: (AS REQUIRED)

USE SSIC
N13052 FOR
FINAL RAMEC TD's

NOTE: INFO FOREIGN
GOVERNMENT(S) AS
APPLICABLE, PER
NAVAIRINST 5605.3A.

UNCLAS //N13052//

SUBJ: A-7 AIRFRAME CHANGE NO. 403, TD CODE 50, EPP ADVISORY LIGHT INSTALLATION
(RAMEC P-10-85), WUC 44216

A. MSG OR SPEEDLETTER THAT SUBMITTED PROPOSED RAMEC TO NAVAIRHQ

1. COG CODE: NAME, CODE AND AUTOVON NOTE: INCLUDE BOTH COGNIZANT
OF THE COGNIZANT ENGINEER. ENGINEERING AND
NAME, CODE AND AUTOVON LOGISTICS CODES
OF THE LOGISTICS MANAGER.

2. CATEGORY: ROUTINE ("URGENT" ONLY IF SAFETY IS INVOLVED AND APPROVED
BY CCB)

3. DOCUMENTATION AFFECTED: (SAME AS INCOMING MESSAGE OR SPEEDLETTER)

NOTE: FOR AMENDMENTS, ONLY SHOW BASIC TD NUMBER
AND DATE-TIME GROUP OF THE MESSAGE.

4. PURPOSE: (SAME AS INCOMING MESSAGE)

DISTRIBUTION: (NAVAIRHQ)

AIR-1022/ 41054/ 410 ____/ 411 ____
51 ____/ PMA/APC ____/ 723I/ 07E1/FC

CHOP CYCLE: NAVAIRHQ

AIR-05 ENG ____ AIR-51 ____
APML/LM ____ AIR-41054 ____
PMA/APC ____ AIR-1022 ____

PARAGRAPH 5. THROUGH 14. - SAME FORMAT AND CONTENT AS

ENCLOSURE (3)

15. RELATED INSTRUCTIONS/INFORMATION:

A. RAMEC P-10-85 SUBMITTED BY REFERENCE (A) WAS APPROVED
14 MAR 85 BY ACCB NO. 851-109.

B. NAVAIWORKFAC (IDENTIFY NAVAIWORKFAC or CFA)

(1) PROVIDE MICROFILM COPIES OF NEW OR REVISED DRAWINGS TO
NAVAIRTECHSERVFAC, CODE 03

(2) PREPARE AND COORDINATE PUBLICATIONS DATA PACKAGE SUBMITTAL
WITH NAVAIWORKFAC, CODE 02D, AND

(3) PREPARE AND FORWARD DESIGN CHANGE NOTICES TO ASO, CODE WSS2-A.

C. NAVAIWORKFAC: COORDINATE TECHNICAL MANUAL UPDATES WITH
NAVAIRWORKFAC AND CONTRACTOR, AND ORDER AS REQUIRED.

Encl (4)

SAMPLE

RAMEC MESSAGE TECHNICAL DIRECTIVE AMENDMENT

FROM: COMNAVAIRSYSCOM WASHINGTON DC

TO: AIG ONE SIX FIVE

AIG THREE

UNCLAS //N13052//

SUBJ: A-7 AIRFRAME CHANGE NO. 403, AMENDMENT NO.1, TD CODE 50, ECP ADVISORY
LIGHT INSTALLATION (RAMEC P-10-85) WUC 44216

A. (MESSAGE OR SPEEDLETTER THAT ISSUED THE BASIC RAMEC TECHNICAL DIRECTIVE).

B. (CORRESPONDENCE PERTAINING TO REQUIREMENT FOR AMENDMENT).

1. COG CODES: (NAME, CODE AND AUTOVON OF COGNIZANT ENGINEER AND LOGISTICS
MANAGER).

2. CATEGORY: ROUTINE (SAME AS ORIGINAL RAMEC).

3. DOCUMENTATION AFFECTED: REFERENCE (A).

4. PURPOSE: TO AMEND REFERENCE (A) TO REFLECT PART NUMBER CHANGE AS REQUESTED
BY REFERENCE (B).

5. RELATED INSTRUCTIONS:

A. REFERENCE (A), PAR 8A AND 10C. CHANGE P/N A 51561400 TO READ
A51S61400.

DISTRIBUTION: (NAVAIRHQ)

CHOP CYCLE: (NAVAIRHQ)

AIR-1022/41054/410_____/411_____
51_____/PMA/APC_____/723I/07E/FC

AIR-05 ENG_____/AIR-51_____
APML/LM_____/AIR-41054_____
PMA/APC_____/AIR-1022_____



DEPARTMENT OF THE NAVY

NAVAL AIR SYSTEMS COMMAND
NAVAL AIR SYSTEMS COMMAND HEADQUARTERS
WASHINGTON, DC 20361-0001

IN REPLY REFER TO

NAVAIRINST 5215.10D CH-1
AIR-102
5 Feb 88

NAVAIR INSTRUCTION 5215.10D CHANGE TRANSMITTAL 1

From: Commander, Naval Air Systems Command

Subj: PROCESSING OF RAPID ACTION MINOR ENGINEERING CHANGES

1. Purpose. To issue changes to the basic instruction.
2. Action. Addressees will make the following pen and ink changes to NAVAIR Instruction 5215.10D:

	<u>Paragraph</u>	<u>Change</u>
a.	4	naval air rework facilities (NAVAIREWORKFAC's) to naval aviation depots (NAVAVNDEPOT's)
b.	5c	\$500 to \$1,500
c.	5o	\$15,000 to \$25,000
d.	6a	Add below last sentence - <u>NOTE:</u> Organizations requesting change verification or concurrences will include such requests in the beginning of messages or NAVGRAM's.
e.	7b(3)	(Code 02D) to (Code 22-10)
f.	9a (lines 7 and 8)	\$15,000 to \$25,000
g.	10c	ILS Requirements Section (AIR-41054) to Modification Management Office (AIR-410C)
h.	throughout	NAVAIREWORKFAC to NAVAVNDEPOT

R. D. FRIICHTENICH
NAVAIR Acquisition Executive
and Deputy Commander for Operations

Distribution: (See next page)

NAVAIRINST 5215.10D CH-1
5 Feb 88

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FKML5; FKPLM; FKQ6A; FKRLA; FKRLB; FKR2; FKR3A; FKR4A; FKR5; FKR7; FR4; FT1;
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